

Identification Parades in South Africa — Time for a Change?

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Abstract

Identification parades are essential when obtaining evidence of identity from eyewitnesses. Eyewitnesses are shown a line of people containing the suspect(s) and innocent fillers, and witnesses are asked to point out the perpetrator(s) of the crime, noting that the perpetrator(s) might not be present. Corporeal ('live') parades are required in South Africa unless there is a good reason not to use them, in which case the police may use photograph parades. We review the rules for conducting parades in South Africa and compare these to those in several other countries, many of which no longer use corporeal parades. We consider evidence from empirical studies that have tested the 'live superiority' hypothesis and conclude that there is no clear evidence in its favour, notwithstanding that there are benefits to augmenting static views of faces with additional cues to identity. We then consider the logistical and financial cost of conducting live parades, which we find to be considerable. We conclude that it may well be time to reconsider the use of live identification parades in South Africa but caution that this should coincide with a review of the law regulating the use of alternative methods to ensure that accused persons receive fair trials.

Evidence – eyewitness – identification parade – lineup – psychology

I INTRODUCTION

Identification parades have been used in English law since at least the 1860s,¹ but it seems likely that they were used earlier than that elsewhere in the world.² They appear to have been introduced to counteract the suggestive

¹ Patrick Arthur Devlin *Report to the Secretary of State for the Home Department of the Departmental Committee on Evidence of Identification in Criminal Cases* (1976) 112 traces their use to an order issued by the Metropolitan police in March 1860.

² Siegfried Ludwig Sporer 'Lessons from the origins of eyewitness testimony research in Europe' (2008) 22 *Applied Cognitive Psychology* 737 refers to a demand from the Prussian jurist Henke for a similar structure in 1838 in his treatise on

practices of dock identifications and staged confrontations of witnesses and suspects.³ It is unclear when they were introduced into police practice in South Africa, but they have been reported in cases since the 1930s.⁴ Since their introduction, they have become standard police practice in many countries, including England, the United States and South Africa, where it has long been insisted that they should be conducted when evidence of identity is in dispute.⁵ They are widely thought to constitute a safeguard against the dangers that identification evidence presents to the liberty of innocent suspects. As early as 1926, The Justice of the Peace wrote in the *South African Law Journal*⁶ that

‘mistaken identity is the most likely and common cause of miscarriages of justice, and such miscarriages not only shock the public conscience but give rise to doubt and uneasiness as to the administration of justice’.

Similarly, the 11th report of the English Criminal Law Revision Committee stated that ‘we regard mistaken identification as by far the greatest cause of actual or possible wrong conviction’.⁷ The orders issued by the English Home Office on various dates from the 1920s onward establish that in identification parades

‘the suspect should be placed among persons (if practicable eight or more) who are as far as possible of the same age, height, general appearance (including standard of dress and grooming) and position in life’.⁸

In other words, parades were designed to be corporeal, or ‘live’, and this remains the standard practice in South Africa. It is precisely this point that is at issue in this article. Many countries have moved to other ways of conducting parades, which we review below. The question of how to conduct parades — whether in person or in some more convenient format — is an empirical question as much as it is a question of law. Several experiments have compared alternative ways of conducting parades, including simple photospread arrays, and it is not clear that live parades do any better than such alternatives.

As important as the parade may seem as a safeguard against the dangers of eyewitness identification, it does not work particularly well. Although legal commentators have pointed for centuries to these dangers, the scale of the problem became empirically evident with the advent of DNA technology in the 1980s, allowing for post-conviction testing

Criminal Law; Cecil Hewitt Rolph *Personal Identity* (1957) 32 argues that ‘the mists of antiquity have closed over the date [they were first used]’.

³ *R v Palmer* (1914) 10 Cr App R 77; *R v Chapman* (1911) 7 Cr App R 53.

⁴ *Mkize v R* 1932 (1) PH H17 (N); *R v Olia* 1935 TPD 213.

⁵ *R v Mputing* 1960 (1) SA 785 (T).

⁶ The Justice of the Peace ‘Identification’ (1926) 43 SALJ 287.

⁷ Cited in Devlin op cit note 1 at 76.

⁸ See Devlin ibid at 159.

of biological evidence. It took several years of protracted and difficult legal work before the first post-conviction exoneration in the US of Gary Dotson in 1989. Since 1989, more than 375 imprisoned people have been set free in the US through post-conviction DNA testing, with an average sentence served of over twelve years.⁹ The true number of people falsely convicted is likely to be higher than 375, as biological evidence is often not present or available for old cases. Falsely imprisoned prisoners have also been set free in other countries, including South Africa.¹⁰ Many of those convictions relied on the testimony of eyewitnesses who had been tested with identification parades, demonstrating that parades are not the bulwark they are intended to be.

Our goals in this article are to review the evidence in favour of conducting ‘live’ parades, as police are presently obliged to do in South Africa in most circumstances. We will review statutory and case law in South Africa and offer a brief survey of the law and practice in other countries. We will then review research in experimental psychology and criminology that compares identification accuracy across different parade media. We will examine studies investigating the differences in identification accuracy when witnesses make identifications from static photographs (commonly used in the US) compared to video sequences showing profile and three-quarter views (commonly used in the UK). Additionally, we will explore newer parade methods, such as utilising multiple channels, synthetic faces, and interactive 3-D technology. We will analyse the practical implications for law enforcement in constructing live parades and provide a cost analysis for both live and photograph parades. Finally, we will conclude by revisiting the initial question: whether conducting live identification parades is worthwhile or if alternative methods, as adopted by many other countries, should be considered.

II THE LAW GOVERNING THE MEDIUM OF IDENTIFICATION IN SOUTH AFRICA

The origins of South African law regarding identification parades are not clear. There is no reference to identification parades in the first Criminal Procedure and Evidence Act¹¹ of the Union of South Africa. The first reference to identification parades in the South African academic literature appears in the 1920s, but the ‘new police orders’¹² to which the author

⁹ Innocence Project ‘Exonerate the innocent’ available at <https://innocence-project.org/exonerate/>, accessed on 19 December 2022.

¹⁰ Colin G Tredoux & Patrick Chiroro ‘Eyewitness testimony’ in Colin G Tredoux, Don Foster, Alfred Allan, Andrea Cohen & Douglas Wasserman (eds) *Psychology and Law* (2005) ch 7.

¹¹ Criminal Procedure and Evidence Act 31 of 1917.

¹² The Justice of the Peace op cit note 6 at 288.

refers were most likely based on guidelines that the UK Metropolitan Police had issued contemporaneously.¹³ Section 289 of the 1955 Criminal Procedure Act¹⁴ provided for identification parades, and the provision was for all practical purposes retained in s 37(1)(b) of the current Criminal Procedure Act.¹⁵ This section provides:

‘Any police official may ... make a ... [suspect] ... available or cause such person to be made available for identification in such condition, position or apparel as the police official may determine.’

This pithy section provides the sole statutory basis for the holding of identification parades, and the process is therefore mostly left to the discretion of the police and courts.¹⁶ The police alone therefore have the power to hold identification parades, and suspects cannot refuse to participate because it does not affect their right against self-incrimination.¹⁷ The police in the first instance use identification parades as investigative procedures, and courts require them to be held as soon as reasonably possible after the arrest of suspects because ‘the dependability and indeed the probability of an identification at the ... parade diminishes with each passing day’.¹⁸ Parades also serve an important evidential purpose by providing the prosecution with identification evidence.¹⁹ The prosecution often requires such evidence because courts are well aware of the fragility of identifications in general or those made in court or under circumstances that suggest the person is a suspect.²⁰ Trial courts therefore prefer evidence of identification by witnesses that ‘has been confirmed at a properly conducted parade’.²¹ Judges consider identification parades of crucial importance in some cases²² and expect the police to conduct parades if identity might be in dispute or whenever witnesses declare that they will be able to identify offenders.²³

Courts nevertheless appreciate that evidence that an accused was identified at an identification parade could create a false impression regarding the capacity of witnesses to identify the accused.²⁴ Trial courts

¹³ Graham Davies & Laurence Griffiths ‘Eyewitness identification and the English courts: A century of trial and error’ (2008) 15 *Psychiatry, Psychology and Law* 435.

¹⁴ Criminal Procedure Act 56 of 1955.

¹⁵ Criminal Procedure Act 51 of 1977.

¹⁶ Etienne du Toit et al (eds) *Commentary on the Criminal Procedure Act* (RS 50, 2013) 3-17.

¹⁷ *S v Huma* 1995 (2) SARC 411 (W).

¹⁸ *S v Dlamini* 1997 (1) SACR 54 (W) at 61*d*.

¹⁹ *S v De Vries & others* [2008] ZAWCHC 36.

²⁰ *R v Kola* 1949 (1) PH H100 (A); *S v Mthethwa* 1972 (3) SA 766 (A).

²¹ *S v Monyane* 2001 (1) SA 115 (T) at 129E–G.

²² *S v T* 2005 (2) SACR 318 (E).

²³ *R v Mputing* supra note 5.

²⁴ *R v Kola* supra note 20; *R v Shekelele & another* 1953 (1) SA 636 (T).

therefore require prosecutors who wish to rely on the evidence of identification at a parade to prove that it was conducted fairly, and prosecutors try to do this by proving that it was conducted in accordance with the rules of police practice. These rules of practice take the form of a set of rules or guidelines that the police have developed, taking into account case law, and they are recorded in various internal departmental orders.²⁵ Du Toit and colleagues²⁶ collected and published them as eighteen rules, and they have also been quoted in this form by judges in decisions.²⁷ The eighteen rules can be conveniently discussed under four headings: the official in charge, the parade, the suspect, and the witnesses.

(a) *The official in charge*

A police officer other than the investigating officer must be in charge of a parade.²⁸ The person in charge must inform suspects of the purpose of the parade and the allegations against them and give them an opportunity to obtain legal representation at the parade in accordance with the view of courts that suspects are entitled to legal representation at all stages of the investigation and adjudication process.²⁹ Suspects sometimes refuse to co-operate,³⁰ and therefore the rule requires officials in charge to inform suspects that their refusal to participate in a parade can, at a later trial, be adduced as evidence against them and that the court might draw an adverse inference from such refusal. Officials in charge of parades should make contemporaneous records of the proceedings, preferably on the SAPS 329 form, to ensure that they can give accurate accounts to the courts at the subsequent trials.³¹ The constitutional right of accused persons to a fair trial, particularly their right to have an adequate opportunity to prepare for trial,³² dictates that they should have access to relevant SAPS 329 forms to prepare for a trial.³³

²⁵ See 'Hints on the investigation of crime' National Instruction 1 of 2007 on Identification Parades, and Identification Parade Form SAPS 329 referred to in Du Toit op cit note 16; Madimetja William Mokonyama *A Critical Analysis of the Procedures Followed to Conduct Identification Parades: A Case Study in Mpumalanga, South Africa* (MTech thesis, UNISA, 2010).

²⁶ Du Toit op cit note 16.

²⁷ See for example *S v T* supra note 22.

²⁸ *S v Mbuli* 2003 (1) SACR 97 (SCA).

²⁹ *S v Huma* supra note 17.

³⁰ See *S v Hlalikaya* 1997 (1) SACR 613 (SE).

³¹ *S v Monyane* supra note 21; *S v T* supra note 22.

³² Section 35(3)(b) of the Constitution of the Republic of South Africa, 1996.

³³ Du Toit op cit note 16.

(b) Parades

A parade should consist of at least eight to ten people, but in *S v Mbuli*,³⁴ twelve men were placed on the parade. There should preferably be only one suspect on a parade, and if there are more, they should ideally be approximately similar in general appearance, and the parade members should be increased to at least twelve to sixteen. When the same identifying witnesses are involved in two parades, the suspect should not be the only person appearing in both, nor should a suspect be added to a parade to form a second parade after the identifying witnesses have already inspected the first parade.³⁵

All those on the parade should be of roughly the same build, height, age and appearance, should have more or less the same occupation, should be approximately similarly dressed, and suspects' clothing should not suggest that they are the suspects.³⁶ Courts do not, however, require absolute uniformity:³⁷ in *Jantjie v S*,³⁸ the suspect was the only one with white shoes, and in *S v Mbuli*,³⁹ the photographs showed that the appellant was taller (191 cm) than any other man on the parade. The rules indicate that it is desirable that at least one photograph should be taken of all the people (including suspects) depicting them as they appeared in the parade and stood next to each other. The rules do not prevent officers in charge from making audio-visual recordings (eg videotape recordings) of the proceedings.

(c) Suspects

Officials in charge of identification parades should inform suspects that they may take up any position in the parade and can change their position between witnesses if there is more than one identifying witness. Officials in charge should enquire whether suspects are satisfied with the conduct of the identification parade and whether they have any requests to make, and they should agree to any reasonable requests that the suspects make.⁴⁰

(d) Witnesses

Officials in charge should prevent witnesses from seeing suspects in circumstances that indicate that they are the suspects or seeing any person who will appear in the relevant parade.⁴¹ They should therefore keep

³⁴ Supra note 28.

³⁵ *R v Olia* supra note 4.

³⁶ *S v Sibanda* 1969 (2) SA 345 (T).

³⁷ *S v Tusi* 1957 (4) SA 553 (N).

³⁸ *Jantjie v S* [2014] ZAGPPHC 512.

³⁹ *S v Mbuli* supra note 28.

⁴⁰ Du Toit op cit note 16.

⁴¹ *R v Nara Sammy* 1956 (4) SA 629 (T).

witnesses separate from one another and prevent them from discussing the case while they wait to be called upon to view the parade and after viewing the parade. Witnesses should also not have contact with police officials who might be able to influence their identification of a suspect. Police officers who are not in charge of the parade and who are not investigating the case should supervise witnesses and prevent them from seeing the formation of the parade.⁴² Police officers who are not investigating the case and who are not in charge should escort witnesses from the place where they are waiting under supervision to the identification parade, and they should afterwards take witnesses to a place where they will not have any contact with those witnesses who have not yet viewed the parade. Escorts may not discuss the case with witnesses and should not know the formation of the parade.⁴³ The official in charge should inform each identifying witness that the suspect might or might not be on the parade⁴⁴ and that they should tell the officer in charge if they cannot make a positive identification. Witnesses who identify suspects should ideally be photographed touching their shoulders,⁴⁵ but courts have accepted evidence where the witness pointed to the suspect without any comment.⁴⁶ The rules do not refer to identification through one-way glass, although it now appears to be common practice. Notably, judges in older cases did not support this practice.⁴⁷

Courts are not satisfied with a bald statement that the witnesses identified a person at a parade and require evidence that the parade was held in accordance with the prevailing rules.⁴⁸ Since the seminal decision in *R v Shekelele & another*,⁴⁹ it has become established practice for courts to expect that the witnesses should be asked what features led them to identify the person whom they claim to recognise and that, with unrepresented accused, the presiding officer should ask the relevant questions on behalf of the accused.⁵⁰ Evidence that demonstrates that a parade was held in accordance with the rules will enhance the weight of any identifications made at the parade,⁵¹ but deviations from these rules are irregularities that are not necessarily fatal to the admissibility of evidence about the parade because the rules are practice guidelines that lack the authority of legislation or even the so-called judges' rules.⁵² Courts will consider the

⁴² *S v Mbuli* supra note 28.

⁴³ *R v Nara Sammy* supra note 41.

⁴⁴ *Jantjie v S* supra note 38.

⁴⁵ *S v Mbuli* supra note 28.

⁴⁶ *Jantjie v S* supra note 38.

⁴⁷ *R v Nara Sammy* supra note 41.

⁴⁸ *R v Masemang* 1950 (2) SA 488 (A) at 493.

⁴⁹ Supra note 24.

⁵⁰ Ibid at 638G–H.

⁵¹ *R v Masemang* supra note 48.

⁵² *S v Bailey* 2007 (2) SACR 1 (C).

nature of the irregularity and give less or no weight to evidence emerging from a flawed parade.⁵³ However, a court will convict the accused if there is proof of guilt beyond a reasonable doubt on the evidence unaffected by the irregularity or defect.⁵⁴

(e) *Photograph identification parades*

Two old articles in the *South African Law Journal* refer to the use of photograph parades, but Loreburn's 1917 article⁵⁵ is a very general discussion about mistaken identity rather than specifically about photograph parades. The article by The Justice of the Peace⁵⁶ is more relevant but refers to an unidentified 1925 Court of Criminal Appeal case (most likely the English case *R v Dwyer; R v Ferguson*,⁵⁷ where the police showed photographs of the accused persons to witnesses before an identification parade). The first reported Southern African case referring to the use of photographs to identify a suspect was *R v Jackson*,⁵⁸ where the court upheld the appeal of a person convicted of theft because the detective showed one photograph only to the identifying witness.

Section 37(1)(d) of the Criminal Procedure Act authorises police officers to take photographic images of suspected people without indicating how they should use them, thereby leaving the identification process to the discretion of the police and courts. Trial courts realise that using photographs creates a dilemma for the police because witnesses who identify suspects when they look at photographs during the investigation provide essential information that allows the police to make an arrest.⁵⁹ Such an identification might, however, in itself not provide sufficient evidence to procure a conviction and cause doubt about a later recognition at an identification parade.⁶⁰ The problems are the same if the police hold photographic identification parades after they have shown photographs to witnesses.⁶¹ The courts do not automatically prevent the prosecution

⁵³ *S v Monyane* supra note 21.

⁵⁴ *S v Bailey* supra note 52.

⁵⁵ Lord Loreburn 'Cases of mistaken identity' (1917) 34 *SALJ* 152.

⁵⁶ *Op cit* note 6.

⁵⁷ [1925] KB 799.

⁵⁸ [1955] SR 85.

⁵⁹ Cloete J's decision in *S v Bveni* [2020] ZAWCHC 190 illustrates how police use photographs in the identification of offenders. Paragraphs 112 to 129 illustrate how the police conduct photo identity parades. Paragraphs 130 to 148 demonstrate their wider use of photographs during the investigation stage and show that the process is more lenient than it is during a formal identity parade (see eg para 144). Overall, the decision demonstrates that several of the safeguards related to corporeal identification parades are absent when the police undertake photo identity parades.

⁶⁰ *S v Moti* 1998 (2) SACR 245 (SCA).

⁶¹ *Mavangwana v S* [2010] ZASCA 43.

from using the results of parades that were held after the police showed photographs to witnesses during the investigation⁶² and deem it inappropriate to make all the strict requirements of live identification parades applicable to photographic identification parades.⁶³ One notable difference is that judges have specifically ruled that the accused does not have a constitutional right to legal representation at photographic identification parades, and they can therefore take place in the absence of the accused and their legal representatives.⁶⁴

In *S v Moti*,⁶⁵ which is the leading case concerning photograph parades, the Supreme Court of Appeal indicated that evidence about what happened during the photo identification is admissible in principle but that such evidence should be approached with a sceptical frame of mind because of the absence of the normal external safeguards. The courts therefore examine the evidence to determine whether there is a reasonable possibility that improper or other behaviour or the circumstances as such might have tainted the reliability and accuracy of an eyewitness identification. They do this by first investigating the properness of the identification. They consider it irregular if the police arrange a photographic identification parade rather than an identification parade,⁶⁶ with exceptions such as when suspects do not co-operate with the officers in charge who were trying to form the identification parade.⁶⁷ They also consider it irregular if the police showed a photograph of a suspect to a witness shortly before the witness made the identification, either at an identification parade or from the witness box. Courts further consider the reliability of the evidence, taking several factors into account.⁶⁸ They for instance consider the credibility of witnesses and other people who were involved in the identification process and specifically want to know whether they were part of the investigation team. Judges are also interested in who showed the photographs to witnesses, under what circumstances this took place, and what instructions presenters gave witnesses. Other important factors are whether the witness had given a prior description of the offender that resembled the photograph.⁶⁹ Courts consider the number of photographs the police showed the witness,⁷⁰ and the Supreme Court of Appeal has recommended that there should be more than eight.⁷¹ The people in the

⁶² *S v Ndika* 2002 (1) SACR 250 (SCA).

⁶³ *S v Moti* supra note 60.

⁶⁴ *S v Hlalikaya* supra note 30.

⁶⁵ Supra note 60.

⁶⁶ Ibid.

⁶⁷ *S v Hlalikaya* supra note 30.

⁶⁸ *S v Moti* supra note 60.

⁶⁹ *Mavangwana v S* supra note 61.

⁷⁰ *R v Jackson* supra note 58.

⁷¹ *S v Ndika* supra note 62.

photographs that the witness viewed should resemble one another, and the whole spread should be available at the trial to allow judges to compare the photographs.⁷²

(f) *Voice identification parades*

The Criminal Procedure Act does not refer to voice identification, but the police can undertake voice identification parades under s 37(1)(c) to ascertain whether the voice of a suspect has any distinguishing features.⁷³ Evidence of voice recognition is acceptable if it is credible in the sense of being reliable,⁷⁴ and one way of testing such evidence is by using voice identification parades. In *R v Chitate*,⁷⁵ this was done by requiring the witness to stand with his back to the members of the parade who repeated the same sentence. Voice identification parades are rare, but there is — according to South African courts — in principle no difference between them and visual identification parades,⁷⁶ and both are subject to the principle of fairness.⁷⁷ Courts require that the identification should take place as soon as possible after the incident and that witnesses should not hear the voice of anybody they know is a suspect before the relevant parade.⁷⁸ The parade should include several voices — definitely more than four.⁷⁹ The other voices must resemble that of the suspect and include several that are familiar to the witness.⁸⁰ The voices should be reasonably similar to one another.⁸¹ The suspect must not speak last since there is no one else to identify at that point.⁸² The courts further expect questions to witnesses regarding what features of voices (eg timbre, loudness) led them to recognise a voice.

III THE LAW AND PRACTICE IN OTHER COUNTRIES REGARDING ID PARADES

In many jurisdictions outside South Africa, the weight assigned to identification evidence is unaffected by whether a corporeal or photograph parade was conducted. For example, in Canada, corporeal parades have

⁷² *S v Moti* supra note 60.

⁷³ *Levack v Regional Magistrate Wynberg* 2003 (1) SACR 187 (SCA).

⁷⁴ *S v Mahlangu* 2018 (2) SACR 64 (GP).

⁷⁵ 1966 (2) SA 690 (RA).

⁷⁶ *R v Gericke* 1941 CPD 211.

⁷⁷ Du Toit op cit note 16 at 3-42.

⁷⁸ *R v Chitate* supra note 75; *S v M* 1972 (4) SA 361 (T).

⁷⁹ *R v Gericke* supra note 76.

⁸⁰ This requirement is unusual and would be strongly contested by those who conduct empirical research on parades. Familiar voices would be considered ‘duds’ and will likely lower the plausible number of alternatives to the suspect’s voice.

⁸¹ *R v Chitate* supra note 75; *S v M* supra note 78.

⁸² *R v Gericke* supra note 76.

long been abandoned, and trial judges routinely admit identification evidence obtained from photographic parades without comment.⁸³ Eyewitness identification practices have developed similarly in the US, where over 90 per cent of police agencies report using photograph parades.⁸⁴ Courts typically do not question their reliability,⁸⁵ and indeed their use is reinforced by policies.⁸⁶

However, policies in many countries still favour corporeal parades. In a review of identification policies from 54 countries, 46 per cent showed a preference for corporeal identification.⁸⁷ Most of these policies permit photograph identification, but only if a corporeal identification is not possible. Policies, however, do not always reflect practice. For instance, the Supreme Court of India has ruled that with sufficient corroboration, photograph identification is ‘permissible’.⁸⁸ This judgment notwithstanding, corporeal identification parades remain common in India.⁸⁹

Elsewhere, corporeal parades are recommended in policy, but photograph parades are more common in practice. Australian policy, for instance, has historically favoured corporeal parades.⁹⁰ Although factors such as the severity of the crime may be considered when deciding on

⁸³ FPT Heads of Prosecution Committee Working Group ‘Innocence at stake: The need for continued vigilance to prevent wrongful convictions in Canada’ (2018), available at <https://www.ppsc-sppc.gc.ca/eng/pub/is-ip/is-ip-eng.pdf>, accessed on 19 December 2022.

⁸⁴ Police Executive Research Forum ‘A national survey of eyewitness identification processes in law enforcement agencies’ (2013), available at <https://www.ojp.gov/pdffiles1/nij/grants/242617.pdf>, accessed on 19 December 2022.

⁸⁵ Gary L Wells & Eric P Seelau ‘Eyewitness identification: Psychological research and legal policy on lineups’ (1995) 1 *Psychology, Public Policy, and Law* 765.

⁸⁶ American Bar Association ‘American Bar Association statement of best practices for promoting the accuracy of eyewitness identification procedures [Report #111C]’ available at https://nacdl.org/getattachment/1c32cccb-7d28-4526-865e-9d8aaf316e18/aba_statement_of_best_practices.pdf, accessed on 19 December 2022; Technical Working Group for Eyewitness Evidence *Eyewitness Evidence: A Guide for Law Enforcement* (1999); Gary L Wells et al ‘Policy and procedure recommendations for the collection and preservation of eyewitness identification evidence’ (2020) 44 *Law and Human Behavior* 3; Sally Q Yates *Eyewitness Identification: Procedures for Conducting Photograph Arrays* (2017), available at <https://www.justice.gov/archives/opa/press-release/file/923201/download>, accessed on 19 December 2022.

⁸⁷ Ryan J Fitzgerald, Eva Rubínová & Stefana Juncu ‘Eyewitness identification around the world’ in A M Smith, M Togliola & J M Lampinen (eds) *Methods, Measures, and Theories in Eyewitness Identification Tasks* (2021) ch 13.

⁸⁸ *Rabindra Kumar Pal Alias Dara Singh vs Republic of India* (2011) 2 SCC 490 para 42.

⁸⁹ Sarvesh Kumar Shahi ‘Rules and principles of identification under the criminal justice system’ available at <https://www.sconline.com/blog/post/2020/08/20/rules-and-principles-of-identification-under-criminal-justice-system/>, accessed on 30 April 2023.

⁹⁰ Uniform Evidence Law (ALRC Report 102).

the parade medium, Australia's Evidence Act⁹¹ states that corporeal identification should normally occur for a suspect who is in custody and willing to take part. Nevertheless, the Act allows defendants to decline the corporeal parade and for a photograph parade to be conducted instead. In recent years, policy in some Australian states (eg Western Australia and South Australia) has shifted away from the preference for corporeal parades. In *Winmar v the State of Western Australia*,⁹² the Supreme Court of Western Australia disputed that corporeal parades are superior and deemed it unnecessary to instruct juries about the potential unreliability of photograph identification. Similarly, s 34AB(4) of the Evidence (Identification Evidence) Amendment Act of 2013 proscribes South Australian judges from suggesting that photograph parades are less reliable than corporeal parades.

The most striking departure from corporeal parades occurred in England. Corporeal parades were preferred in England throughout the twentieth century⁹³ but are now only used in exceptional circumstances. The transition away from corporeal parades was enacted through a series of revisions to Code D of the Police and Criminal Evidence Act, 1984, the code of practice governing identification procedures in England and Wales. In the 1991 revision of Code D, a provision was introduced to allow the use of video identification parades if a corporeal parade was not feasible.⁹⁴ This led to the semi-regular use of video parades, which became the subject of a Briefing Note published by the Home Office.⁹⁵ Using police interviews and identification outcomes, the Briefing Note revealed three key findings: compared to corporeal parades, video parades were (1) inherently more practical, (2) far less likely to be cancelled, and (3) leading to higher suspect identification rates. Code D was revised again in 2004 to give preference to video parades and only allow corporeal parades if a video parade would not be practical. This marked the demise of corporeal parades in England.⁹⁶

⁹¹ Evidence Act 1995 (Cth), ss 114–15.

⁹² *Winmar v The State of Western Australia* [2007] WASCA 244.

⁹³ Secretary of State for the Home Department *Instructions for Holding Identification Parades: Report of the Royal Commission on Police Powers and Procedure* (1929); Home Office 'Identification parades' Home Office Circular 9/1969; the Police and Criminal Evidence Act, 1984 ('PACE') Code D.

⁹⁴ Graham Davies & Laurence Griffiths 'Eyewitness identification and the English courts: A century of trial and error' (2008) 15 *Psychiatry, Psychology and Law* 435.

⁹⁵ Graham Pike, Nicola Brace & Sally Kynan 'The visual identification of suspects: Procedures and practice' (2002) Home Office briefing note 2/02, available at http://oro.open.ac.uk/84749/1/brf202%20-%20The%20Visual%20Identification%20of%20Suspects_%20Procedures%20and%20Practice%20.pdf, accessed on 19 December 2022.

⁹⁶ Tim Valentine, Carwyn Hughes & Rod Munro 'Recent developments in eyewitness identification procedures in the United Kingdom' in Ray Bull,

Video parades remain the preferred procedure in England, which now has the infrastructure to support a sophisticated video identification system. Virtually all video parades in England are managed by the National VIPER Bureau or PROMAT systems. VIPER and PROMAT maintain databases comprising tens of thousands of standardised 15-second video clips that display a mugshot of a parade member facing forward and turning for profile views.⁹⁷ Even before the introduction of the video systems, the prevalence of identification parades in criminal cases had been increasing, from approximately 2000 in 1976⁹⁸ to an estimated 30 000⁹⁹ in 1993. By 2006, with the national video system in place, the estimated number of parades had increased to 80 000,¹⁰⁰ and in interviews with UK police officers, most indicated that they believed video parades to be more convenient and reliable.¹⁰¹

IV RESEARCH ON PARADE FACTORS OTHER THAN THE MEDIUM OF PRESENTATION

In this part, we review empirical research on identification parades but do not yet consider the medium of presentation. It would require a much longer article to set this research out in detail, so we rely instead on a 2020 article by Gary Wells and colleagues,¹⁰² who make recommendations based on empirical research in the US and whose conclusions are widely accepted in the field. Indeed, the article represents the official position taken by the American Psychology-Law Society, which is the most significant association of researchers in the research area.¹⁰³ It is not simply expedient to report the recommendations from the team: Wells and colleagues have made significant contributions not only to research on witnesses but also to the reform of the criminal justice system in the US through the National Institute of Justice. This work started after then-Attorney General Janet Reno requested Wells to assemble and lead a team to make recommendations about legal reform in the US, given that hundreds of exonerees had been convicted on the basis of eyewitness

Tim Valentine & Tom Williamson (eds) *Handbook of Psychology of Investigative Interviewing: Current Developments and Future Directions* (2009) ch 13.

⁹⁷ National VIPER Bureau 'Benefits' available at <https://www.viper.police.uk/pages/benefits.html>, accessed on 30 April 2023; Promat Envision International 'Exhibition brochure' available at <http://www.promatenvision.co.uk/Media/PROMAPS%20Brochure%20Sept%202022.pdf>, accessed on 30 April 2023.

⁹⁸ Devlin op cit note 1.

⁹⁹ Based on extrapolated data from 46 per cent of UK forces, which conducted 13 652 identification parades. See A Slater *Identification Parades: A Scientific Evaluation* (1994).

¹⁰⁰ Valentine et al 2009 op cit note 96.

¹⁰¹ Ibid.

¹⁰² Wells et al op cit note 86 at 8–9.

¹⁰³ Ibid at 3.

identifications (at least in part), and then exonerated with DNA tests.¹⁰⁴ The references in the 2020 article by Wells and colleagues can be perused for the empirical sources of the recommendations. Interestingly, some of these recommendations had been implemented in South African law and police practice for several decades before they were adopted in various US jurisdictions. However, many have not found their way into our law, and they are worth mentioning here since most of the case law in South Africa has focused on how to construct and run parades. It is important to recognise that the recommendations reflect the state of the research literature as of 2020, and it is possible that new evidence may change the current scientific consensus.

(a) *Procedures prior to conducting parades*

Human memory is highly susceptible to the passage of time, and witnesses should therefore be interviewed as soon as is practicable after the event they witnessed. Witnesses are also susceptible to post-event information from media reports and other witnesses and should therefore describe the perpetrator(s) at the initial interview, their viewing conditions, and their state of awareness and attention. They should also document possible familiarity with the perpetrator(s), as this will generally exclude testing them with a parade. To counteract potential contamination by other witnesses or people, witnesses should be instructed not to discuss the event with them. It is strongly recommended that the entire interview be both audio- and video-recorded.

(b) *Double-blind procedure*

It is now widely accepted¹⁰⁵ that tests and interventions should be conducted on a ‘double blind’ basis, and this should equally be so for identification parades — that is, neither the witness nor the officer conducting the parade should know the suspect’s identity. Even though police officers may have the best intentions to conduct a parade in a non-suggestive manner, they might inadvertently influence the decisions that witnesses make. It is worth noting that it is relatively easy to conduct a photo or video parade ‘double blind’ but very difficult to conduct a live parade in such a manner.

¹⁰⁴ Gary L Wells et al ‘From the lab to the police station: A successful application of eyewitness research’ (2000) 55 *American Psychologist* 581.

¹⁰⁵ Simon Day & Douglas Altman ‘Blinding in clinical trials and other studies’ (2000) 321 *British Medical Journal* 504; Campbell collaboration ‘Methodological expectations of Campbell Collaboration intervention reviews: Conduct standards: Campbell Policies and Guidelines Series No. 3’ (2017), available at https://www.campbellcollaboration.org/media/k2/attachments/Campbell_MECCIR_conduct_standards_2017.docx.

(c) Instructions to the witness

From the time that witnesses are invited to an identification parade, police should be careful not to provide information that the witnesses have not themselves provided and should not suggest that the perpetrator will be present in the parade. The witness should be instructed that the conducting officer does not know which parade member is the suspect and must explicitly state that the perpetrator might not be in the parade and that the correct answer to give may well be ‘not present’ or ‘none of these’. Witnesses should also be told that they may say ‘don’t know’. They should also be advised that they will be asked how confident they are in their decision after making it and that the police will continue their investigation even if they do not make an identification.

(d) Information recorded at the parade

Decisions made by witnesses that are made with high confidence are diagnostic of perpetrator identity if the circumstances under which they are made are ‘pristine’. Statements of confidence should therefore be collected from witnesses. Available evidence suggests that approximately 90 per cent of witnesses who are 90–100 per cent confident in their decisions are correct. Since statements of confidence at trial are not diagnostic but will likely be assessed there, one needs a record of the confidence statement made at the time of the identification, when research shows they have diagnostic utility. In addition, witness confidence is known to be highly malleable and should therefore be taken as soon as a decision is made at the parade to verify that the witness’s confidence has not changed.

(e) Ancillary recommendations

Since there are many recommendations regarding the construction and running of parades, the entire parade, including the giving of instructions and the assessment of confidence, should be audio- and video-recorded. A parade should not be repeated if it has the same suspect and the same eyewitness, irrespective of whether the eyewitness made an identification decision or not in the prior parade. ‘Showups’ (in which the witness and suspect are brought into one-on-one visual contact, without fillers) should be avoided if it is possible to conduct a parade instead. The decision to place a suspect in a parade should be based on evidence other than a physical resemblance to a description or a facial composite, and this evidence should be documented before running the parade.

V RESEARCH ON IDENTIFICATION MEDIA

While photograph and video parades offer practical advantages, corporeal parades could be justified if there were benefits to identification performance. Many seem to believe that corporeal parades are the most

effective method of identification,¹⁰⁶ leading to their preference in judicial policies and procedural guides.¹⁰⁷ There is, however, little hard evidence to support this belief.

It may seem obvious that corporeal parades should be superior. They give more visual information and make other types of identity cues available, such as voice and gait.¹⁰⁸ Corporeal presentation might seem especially beneficial compared to photograph parades, which commonly consist of low-quality mugshot images. Nevertheless, reviews of eyewitness experiments consistently show no increase in accuracy compared to non-corporeal parades.¹⁰⁹ It is worth noting, though, that corporeal parades are rarely tested in these experiments, which often have methodological limitations, including the use of small samples.¹¹⁰ A recent exception is a study by Rubínová and colleagues,¹¹¹ who tested the ‘live superiority hypothesis’ on 1048 simulated witnesses who were randomly assigned to live, photo, or video identification procedures. Across three experiments, live identification procedures did not outperform video or photo conditions. This study was a robust test of the potential superiority of live parades and showed that live presentation did not confer a recognition advantage to eyewitnesses.

Although there are few direct comparisons between corporeal parades and non-corporeal parades, insights can be gained from cognitive science research on the benefits of utilising full-body views and dynamic stimuli in identification tests. While traditional eyewitness identification experiments involve participants observing a simulated crime event and attempting to identify the ‘perpetrator’ from an identification parade, cognitive science laboratory experiments simplify the design by focusing on repeated testing with cognitive tasks.

¹⁰⁶ Neil Brewer & Matthew A Palmer ‘Eyewitness identification tests’ (2010) 15 *Legal and Criminological Psychology* 77; Heather L Price et al ‘Evidence for the belief in live lineup superiority’ (2019) 34 *Journal of Police and Criminal Psychology* 263.

¹⁰⁷ Ryan J Fitzgerald, Heather L Price & Tim Valentine ‘Eyewitness identification: Live, photograph, and video lineups’ (2018) 24 *Psychology, Public Policy, and Law* 307; Fitzgerald et al op cit note 87.

¹⁰⁸ Steven E Clark, Molly B Moreland & Ryan A Rush ‘Lineup composition and lineup fairness’ in T Valentine & J P Davis (eds) *Forensic Facial Identification: Theory and Practice of Identification from Eyewitnesses, Composites and CCTV* (2015) ch 6.

¹⁰⁹ Brian L Cutler et al ‘Conceptual, practical, and empirical issues associated with eyewitness identification test media’ in D F Ross, J D Read & M P Toglia (eds) *Adult Eyewitness Testimony: Current Trends and Developments* (1994) ch 8; Fitzgerald et al 2018 *Psychology, Public Policy, and Law* op cit note 107.

¹¹⁰ Brewer & Palmer op cit note 106.

¹¹¹ Eva Rubínová et al ‘Live presentation for eyewitness identification is not superior to photo or video presentation’ (2021) 10 *Journal of Applied Research in Memory and Cognition* 167.

Two relevant experimental paradigms in this context are person matching and old-new person recognition tasks. In person-matching experiments, participants assess whether two simultaneously presented images depict the same person or different individuals.¹¹² In old-new recognition experiments, participants determine whether images presented in a recognition test were previously encountered during an encoding phase.¹¹³ Findings from research utilising these paradigms suggest that the characteristics associated with corporeal parades can enhance identification performance.

Bodies contain diagnostic cues of identity, as has been shown by experiments where faces are obscured, and only bodies are visible. In such cases, person matching and old-new recognition performance surpass chance expectations.¹¹⁴ In one old-new experiment, participants made recognition judgments based on videos showing a whole person walking towards the camera. The videos were presented with the person's face or body obscured. Performance in the body-only videos consistently exceeded chance levels and remained unaffected by distance from the camera.¹¹⁵ Additionally, the identification of whole people outperformed the identification of faces only, especially when the person being tested was shown from a distance.

Basic experiments also suggest that movement helps bind memories of face and body into a coherent whole, increasing identification performance.¹¹⁶ However, the benefits of observing movement are for recognising people who are already familiar¹¹⁷ and are not evident when identifying strangers. In research using point-light displays, which display only movement, participants can identify themselves and their friends, but not people seen just once.¹¹⁸ Similarly, with in-person matching and old-new recognition with more naturalistic images, the identification of people seen once is unaffected by whether the test images are static or moving.¹¹⁹

¹¹² See for example Vicki Bruce et al 'Verification of face identities from images captured on video' (1999) 5 *Journal of Experimental Psychology: Applied* 339.

¹¹³ See for example Nancy Kerr & Eugene Winograd 'Effects of contextual elaboration on face recognition' (1982) 10 *Memory & Cognition* 603.

¹¹⁴ Alice J O'Toole et al 'Recognizing people from dynamic and static faces and bodies: Dissecting identity with a fusion approach' (2011) 51 *Vision Research* 74.

¹¹⁵ Carina A Hahn, Alice J O'Toole & P Jonathon Phillips 'Dissecting the time course of person recognition in natural viewing environments' (2016) 107 *British Journal of Psychology* 117.

¹¹⁶ Galit Yovel & Alice J O'Toole 'Recognizing people in motion' (2016) 20 *Trends in Cognitive Sciences* 383.

¹¹⁷ Barbara Knight & Alan Johnston 'The role of movement in face recognition' (1997) 4 *Visual Cognition* 265; Karen Lander & Lewis Chuang 'Why are moving faces easier to recognize?' (2005) 12 *Visual Cognition* 429.

¹¹⁸ Fani Loula et al 'Recognizing people from their movements' (2005) 31 *Journal of Experimental Psychology: Human Perception and Performance* 210.

¹¹⁹ Noa Simhi & Galit Yovel 'The contribution of the body and motion to whole person recognition' (2016) 122 *Vision Research* 12; Noa Simhi & Galit Yovel

Although the basic cognitive science literature suggests that body and motion cues can improve person identification, this does not justify using corporeal identification parades per se. The benefits of motion cues are generally limited to recognising familiar people. They thus would not help in cases normally tested via identification parades (eg a perpetrator briefly seen for the first time). Body cues do benefit stranger identifications, but this is not evidence that parade members must be physically present for the witness to benefit from such cues. Indeed, the experiments suggesting the benefit of body cues were conducted with non-corporeal stimuli. Experiments that have compared corporeal-to-photograph matching with photograph-to-photograph matching suggest no benefit of corporeal presentation.¹²⁰

Using video parades that include whole-body views instead of mugshot views in photograph or video parades could harness the benefits of body cues for witnesses. Motion, if it enhances body cues, can be shown through video footage without needing in-person presentations. Corporeal parades are believed to provide voice cues, but recorded or synthesised voices can be presented effectively with current technology. Experimental evidence indicates that visual identification alone is often equally accurate. Visual identification usually outperforms voice identification, whether tested by a parade¹²¹ or in recognition laboratory paradigms.¹²² One explanation for poor rates of accurate voice identification is that attention to faces is prioritised at the expense of voices during encoding (the ‘face overshadowing effect’¹²³). It has been suggested that when combined with visual cues, voice cues could facilitate identification by providing additional context.¹²⁴

Unlike many identity cues that could be reproduced technologically, height may be best perceived in person. If the parade is fair, differences in

‘The role of familiarization in dynamic person recognition’ (2017) 25 *Visual Cognition* 550.

¹²⁰ Josh P Davis & Tim Valentine ‘CCTV on trial: Matching video images with the defendant in the dock’ (2009) 23 *Applied Cognitive Psychology* 482; Ahmed M Megreya & A Mike Burton ‘Matching faces to photographs: Poor performance in eyewitness memory (without the memory)’ (2008) 14 *Journal of Experimental Psychology: Applied* 364.

¹²¹ Hunter A McAllister, Robert H I Dale & Cynthia E Keay ‘Effects of lineup modality on witness credibility’ (1993) 133 *The Journal of Social Psychology* 365.

¹²² Nils Olsson, Peter Juslin & Anders Winman ‘Realism of confidence in earwitness versus eyewitness identification’ (1998) 4 *Journal of Experimental Psychology: Applied* 101.

¹²³ Susan Cook & John Wilding ‘Earwitness testimony 2. Voices, faces and context’ (1997) 11 *Applied Cognitive Psychology* 527.

¹²⁴ Gordon E Legge, Carla Grosmann & Christina M Pieper ‘Learning unfamiliar voices’ (1984) 10 *Journal of Experimental Psychology: Learning, Memory, and Cognition* 298.

height should not be sufficient for identifying a parade member. However, if all parade members are too tall or short, misidentification might be less likely at a corporeal parade because witnesses can assess parade members' heights in relation to external points of reference, such as their own height. It is possible, though, that if parade members were photographed with height reference marks, this would counteract potential disadvantages at photograph or video parades.

Corporeal presentation could also increase reliance on behavioural cues. Relative to foils, guilty suspects have greater reason to fear the consequences of identification, and they could therefore behave in ways that reveal their guilt. For example, they may fail to conceal their anxiety, or they may engage in compensatory, anxiety-masking behaviours. One senior South African state prosecutor has noted that the behaviours exhibited at corporeal parades could be cues to identity.¹²⁵ The problem with relying on such cues is that they may not only manifest in guilty suspects. An innocent person who appears in a parade may face the same consequences as a guilty person and may feel similarly anxious about what might happen if they are chosen. This is known as the 'suspect effect'.¹²⁶ Observers are notoriously poor at using behavioural cues to judge whether someone is honest or deceitful.¹²⁷ Although research on behavioural cues at parades is limited, available evidence is that they have limited diagnostic value. In one study, participants who had not witnessed the crime viewed a video recording of a corporeal parade and were better than chance at figuring out the suspect's identity.¹²⁸ Similar results were observed in a study in which participants were more successful than chance at identifying an innocent parade member who had been encouraged with financial rewards to avoid being identified.¹²⁹ Even if behavioural cues enhance the identification of guilty but not innocent suspects, it is important to note that the purpose of an identification parade is not to determine which member appears to be the most anxious. Its primary goal is to assess recognition memory.

¹²⁵ Annegret Rust & Colin G Tredoux 'Identification parades: An empirical survey of legal recommendations and police practice in South Africa' (1998) 11 *SACJ* 196.

¹²⁶ Arne Weigold & Dirk Wentura 'Who's the one in trouble? Experimental evidence for a "psychic state" bias in lineups' (2004) 34 *European Journal of Social Psychology* 121.

¹²⁷ Bella M DePaulo et al 'Cues to deception' (2003) 129 *Psychological Bulletin* 74; Aldert Vrij et al 'Outsmarting the liars: Toward a cognitive lie detection approach' (2011) 20 *Current Directions in Psychological Science* 28.

¹²⁸ Thomas Fabian, Michael Stadler & Peter Wetzels 'The "authenticity error" in real lineup procedures. Effects of suspect-status and corresponding psychological dissimilarities between target person and distractors: An experimental study' in G Davies et al (eds) *Psychology, Law, and Criminal Justice: International Developments in Research and Practice* (1995) ch 4.

¹²⁹ Weigold & Wentura op cit note 126.

Therefore, even if perceiving a suspect's anxiety results in a correct decision, it should not be regarded as a genuine identification.

To summarise, cognitive science research does not provide compelling evidence in favour of corporeal parades. There is no research showing that behavioural cues improve identification, and reliance on such cues is antithetical to the purpose of an identification parade. Motion and body cues may improve identification, particularly when combined, but presenting such cues does not require parade members to be physically present. The studies that have revealed their benefit are far removed from a procedure that could be applied with real eyewitnesses. In experimental procedures that have been designed to emulate the experience of eyewitnesses, corporeal parades have performed no better than photograph or video parades. Note also that such experiments artificially remove many of the constraints associated with organising and administering a corporeal parade in practice. If corporeal parades do not outperform photograph or video parades when all else is equal, they are even less likely to be superior in practice.

VI RESEARCH ON NEWER PARADE TECHNOLOGIES

The article examines whether live or corporeal parades offer better performance for eyewitnesses than simpler and cheaper methods such as photospread parades or video parades. The evidence does not indicate that live parades are superior to these simpler tasks. However, there are intuitive advantages to live parades, such as including whole-body, voice and movement cues. It is suggested that these cues could be incorporated differently in non-corporeal parades, potentially leading to improved identification. In this part, we explore four alternative identification tasks that aim to utilise these cues in non-corporeal parades.

(a) *Multiple channel parades*

One way of presenting different cues to witnesses is by splitting them into separate channels — eg face, body, voice, gait — and asking witnesses to identify the perpetrator in each channel.¹³⁰ One important advantage of this approach is that it has a strong statistical control against false-positive decisions, especially when witnesses choose based on little information. Thus, in a fair eight-person parade, one can expect a witness with no useful information to choose an innocent suspect one-eighth of the time.

¹³⁰ Sean Pryke et al 'Multiple independent identification decisions: A method of calibrating eyewitness identifications' (2004) 89 *Journal of Applied Psychology* 73. See also Melanie Sauerland & Siegfried Sporer 'The application of multiple lineups in a field study' (2008) 14 *Psychology, Crime & Law* 549 and Melanie Sauerland et al 'The reliability of identification evidence with multiple lineups' (2013) 5 *The European Journal of Psychology Applied to Legal Context* 49.

The same witness would, however, choose the suspect only $1/8 \times 1/8 = 1/64$ of the time if choosing with no useful information from two fair independent channels, or $1/4096$ of the time from four independent channels, which is very strong protection. In the original research article, Pryke and colleagues showed that identifications from multiple channels can be highly diagnostic of both suspect innocence and guilt. Two independent replications¹³¹ generally support the conclusions of the earlier study, with some qualifications. This line of research merits further work, but it seems to have fallen dormant. One reason may be that it is very difficult to ensure the fairness of each independent channel: one cannot assume that just because a face parade is fair that the voice parade created from the same parade members will also be fair. It may be possible to use different parades in the various channels, though, to deal with this problem.

(b) *Synthetic parades*

An important limitation of live parades is that it is onerous to find foils who are sufficiently similar to the suspect (or the description of the perpetrator¹³²). It is easier to satisfy this requirement for photographic and video parades since it is relatively easy to assemble large collections of photographs and video clips. However, even large collections of such material have limitations: it might not be possible to find suitable matches to unusual suspects, and there is the additional problem that it is not definitively known that fillers collected in databases are innocent of the crime in question. An alternative method is thus to use synthetic foils (photo-realistic foils created with computer software), engineering them to have suitable levels of similarity to the suspect. Grist & Tredoux¹³³ present a tool embedded in the ID software program¹³⁴ that can construct synthetic foils that vary in perceived similarity to the suspect. It is well within the bounds of possibility to create 3-D synthetic foils using the same technology, which could be manipulated to show different views of foils. More recent developments show that it is possible to create even more realistic synthetic foils with generative adversarial networks¹³⁵

¹³¹ Sauerland & Sporer *ibid*.

¹³² Gary L Wells, Sheila M Rydell & Eric P Seelau 'The selection of distractors for eyewitness lineups' (1993) 78 *Journal of Applied Psychology* 835.

¹³³ Caitlin Grist & Colin G Tredoux 'Manufacturing foils for police lineups with an artificial face synthesizer'. Paper presented at the American Psychology-Law Society Conference, Portland, United States, 2013.

¹³⁴ Colin G Tredoux et al 'An evaluation of ID: An eigenface based construction system' (2006) 37 *South African Computer Journal* 90.

¹³⁵ Generative adversarial networks ('GANs') are machine learning frameworks that pit two neural networks against each other in a zero-sum game. The first network, the generator, tries to create new data that is indistinguishable from the training set. The second network, the discriminator, tries to distinguish

and Stable Diffusion technology,¹³⁶ and even to create synthetic voices,¹³⁷ synthetic bodies¹³⁸ and synthetic gait.¹³⁹ At this stage, there is little control in GAN and Stable Diffusion technologies over the similarity of synthetic creations to targets such as suspected persons, but this ability seems imminent.

New technologies, despite their potential, may not provide any advantages compared to simpler methods such as photospread arrays, just as existing research has failed to demonstrate any superiority of live parades over photospread arrays.

(c) *3-D interactive parades*

A UK research team has developed a web-based application that presents photo parades to witnesses, allowing manipulation of parade members in three dimensions. Preliminary findings indicate that reinstating the original pose improves discrimination accuracy¹⁴⁰ and enhances performance compared to static sequential photo parades.¹⁴¹ However, the team has not yet demonstrated superiority over photospread or live parades. Nevertheless, the technology shows promise, especially considering its cost-effectiveness.

between real and fake data. The two networks are trained simultaneously, with the generator trying to fool the discriminator, and the discriminator trying to distinguish between real and fake data. Over time, the generator learns to create increasingly realistic data, while the discriminator becomes increasingly accurate at distinguishing between real and fake data.

¹³⁶ Stable Diffusion models are generative models that create new data by adding noise to a latent representation of the data and then decoding the noisy representation back into data. This process is repeated many times, with the amount of noise gradually decreasing. As the noise decreases, the data becomes more and more realistic. Robin Rombach et al 'High-resolution image synthesis with latent diffusion models' *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* (2022).

¹³⁷ Ehab Alsayed Albadawy Abdrabuh *AI-Synthesized Speech: Generation and Detection* (Dissertation, State University of New York at Albany, 2022).

¹³⁸ Florinel-Alin Croitoru et al 'Diffusion models in vision: A survey' 2023 *IEEE Transactions on Pattern Analysis and Machine Intelligence* available at <https://doi.org/10.1109/tpami.2023.3261988>.

¹³⁹ Manuel Y Galliker et al 'Planar bipedal locomotion with nonlinear model predictive control: online gait generation using whole-body dynamics' 2022 *IEEE-RAS 21st International Conference on Humanoid Robots (Humanoids)* available at <https://doi.org/10.1109/humanoids53995.2022.10000132>.

¹⁴⁰ Melissa F Colloff et al 'Optimizing the selection of fillers in police lineups' (2021) 118 *Proceedings of the National Academy of Sciences* 8.

¹⁴¹ Melissa F Colloff et al 'Active exploration of faces in police lineups increases discrimination accuracy' (2022) 77 *American Psychologist* 196.

VII CONDUCTING CORPOREAL AND PHOTO PARADES IN SOUTH AFRICA PRESENTLY

We have had extensive contact with the South African Police Service ('SAPS') and have published several articles on the conducting of parades.¹⁴² We have also gathered data for this article from detectives who regularly conduct both parades in South Africa to get a clear sense of the logistics and costs involved.¹⁴³ The original data and calculations are available from the authors on request.

(a) *Live parades: logistics — pre-parade*¹⁴⁴

The suspect, usually in custody, awaits an identification parade. To ensure suitable fillers, the investigating officer visits the suspect in prison for a visual assessment. The fillers must bear a reasonable resemblance to the suspect, both in appearance and social standing. Police often select prisoners from the same facility where the suspect is held, providing a moderately large pool of potential fillers. The officer must then arrange for the fillers to be temporarily released on the day of the parade, with the suspect's approval of the selection. Each filler's information must be documented on forms, which must be completed and submitted to the prison at least 72 hours before the parade.

Other tasks that must be completed include: (a) arranging a truck to transport prisoners to the parade; (b) finding a security team to escort that truck (usually between six and twelve police officials); (c) finding a police photographer or videographer to record the parade; (d) finding an interpreter, if one is needed; (e) meeting with the suspects' legal representatives; (f) arranging other officials, including witness guards and escorts, to assist with the parade; and (g) arranging to fetch the witness(es) on the day of the parade.

(b) *Live parades: logistics — parade preparation*

On the day of the parade, the prisoner transport vehicle and the team of police officers escorting the vehicle must arrive at the prison three to four hours before the parade begins to collect and transport the suspect and parade fillers. In the case of the Western Cape, at the time of the 2018 survey conducted by Nortje et al,¹⁴⁵ there were eight police stations in the

¹⁴² Rust & Tredoux op cit note 125. Alicia Nortje, Colin G Tredoux & Annelies Vredevelde 'Eyewitness identification of multiple perpetrators' (2020) 33 *SACJ* 348.

¹⁴³ We would especially like to thank Colonels Kenneth Speed and Roderick Botha from the Directorate for Priority Crime Investigation for their assistance.

¹⁴⁴ Colonel Kenneth Speed 'Costing estimate for ID parades'. Unpublished document available from the first author at 1.

¹⁴⁵ Nortje et al op cit note 142.

Western Cape where the facilities were adequate for conducting parades. The suspect(s) and fillers may have to be transported more than twenty kilometres. Since the fillers are usually prisoners, they are transported securely, with armed police in attendance. Elsewhere, vehicles with one or two SAPS members will separately collect each witness who is to take part in the parade (witnesses should not be transported together lest they influence one another). At the parade venue, the detective running the parade — who, as indicated before, must not be the investigating officer — will ensure that additional personnel are in place for running the parade. This may include (a) an interpreter; (b) a photographer or videographer; (c) an official to guard the witness(es) in a closed office or waiting room out of sight and earshot before the witnesses view the parade; (d) an official to escort the witness(es) from the witness waiting room to the parade; (e) an official to escort the witness(es) off the parade to the witness waiting room; (f) an official to guard the witnesses after they have viewed the parade. If the suspect taking part in the parade is dangerous or an escape risk, the conducting officer must secure the perimeter of the parade venue, which usually requires between six and twelve officers from one of SAPS's high-risk units. The high-risk unit will generally be on duty at the parade venue between eight and twelve hours from start to finish.

(c) *Live parades: logistics — conducting the parade*¹⁴⁶

Because a live parade involves many parties, it can take 60 minutes to set it up. It takes an additional 30 to 60 minutes after the initial set-up to the point where the first witness can be called. The tasks in this period include: (a) introducing all present to the camera; (b) explaining to the suspect(s) what their constitutional rights are; (c) ensuring that the suspects and their legal representatives are satisfied with the parade 'fillers'; (d) allowing suspects to choose their positions in the parade, the clothing they will wear, and the number board they will hold while on the parade; and (e) recording the names, positions and number boards of everyone. Live parades usually take two to four hours to complete but can take much longer if there is more than one witness.

The estimates above will vary according to how many suspects are put on parade (Nortje et al¹⁴⁷ report that 35 per cent of Western Cape parades contain more than one suspect) and how many witnesses are asked to view the parade. This could significantly increase the number of personnel and the time required.

After conducting a reasonably detailed analysis of the personnel requirements, time involved, transportation costs, and hourly pay rates, we have

¹⁴⁶ Speed op cit note 144 at 1.

¹⁴⁷ Nortje et al op cit note 142.

computed the minimum and median likely costs of a live identification parade. The minimum cost ranges between R26 000 and R33 000, while the median cost falls between R46 000 and R56 000. The labour involved in organising the parade is estimated at approximately 130 to 290 hours. These estimates can vary due to case-specific factors, such as the number of suspects and witnesses, the perceived level of danger associated with the suspects and fillers, and the potential non-attendance of witnesses or police personnel on the scheduled day, which is a common occurrence.

(d) Photograph parades: logistics — pre-parade¹⁴⁸

The preparatory tasks in putting a photograph parade together include: (a) taking or sourcing a photograph(s) of the suspect(s); (b) providing a digital copy of the photograph(s) to the official in the police service who builds photograph parades; and (c) indicating the number of ‘filler’ photographs required. The official will (a) construct a digital photograph parade using images available in a national database; (b) print copies of the photograph parade (or album) in colour; (c) print instructional documentation with case details; and (d) prepare a photograph parade ‘pack’ (each photo parade album must be sealed separately in a forensic bag, along with instructional documentation). This process takes between two and three hours.

(e) Photograph parades: logistics — parade preparation

SAPS officials will fetch and return witnesses to the photograph parade venue. The interpreter, if needed, and the videographer will transport themselves to the parade facility. The photograph parade will be run by a police officer who is not the investigating officer, and just as for a live parade, several officials will be needed: (a) a photographer; (b) officials to transport witnesses; (c) an official to guard witness(es) before viewing the photograph parade; (d) officials to escort the witnesses from a waiting room to the parade; and (e) an official to escort the witness back to the waiting room. An officer must guard the witness after viewing the photograph parade, but there is no need for the security detail required for live parades for dangerous suspects.

(f) Photograph parades: logistics — conducting the parade¹⁴⁹

Photograph parades typically last between 30 and 90 minutes. The procedure is simpler since the suspect is not present. The procedure is to introduce all those present to the camera and to follow the instructions in the forensic bag, reading them to the witness, who then attempts the

¹⁴⁸ Speed op cit note 144 at 2.

¹⁴⁹ Ibid at 3.

task. If there are multiple witnesses, the same precautions are followed in leading them in and out of the parade room.

After conducting a thorough analysis of personnel requirements, time involved, transport costs and hourly rates, we have determined that the minimum estimated cost of a photograph identification parade ranges from R3700 to R4700. The median estimated cost falls between R6000 and R8000. The total labour hours required for the parade are expected to range from 16 to 32. Variations in these figures are attributable to case-specific factors.

VIII LIMITATIONS AND TRADE-OFFS OF LIVE AND PHOTOGRAPH PARADES

Both live and photographic parades have limitations, and there are trade-offs in choosing one over the other. In the case of live parades, a key difficulty is to choose fillers who resemble the suspect in all important ways, which is especially difficult when the suspect is distinctive and there is a limited pool of fillers. South African police often solve this problem by drawing fillers from the prison in which the suspect is being held. This may work for many suspects but not for a sizeable number. Consider by contrast the situation in the UK, where the two main suppliers of video parade technology have libraries of tens of thousands of fillers who are catalogued with descriptors to allow efficient retrieval and comparison. The absence of suitable fillers resembling the suspect not only compromises the parade and puts innocent suspects at risk, but also wastes valuable police time and resources. Additionally, live parades incur significant costs, whereas photographic parades can be conducted for as little as one-seventh of the cost, freeing up police resources for other important tasks.

Live parades suffer from additional issues that need to be reiterated. First, they cannot be conducted in a 'double blind' manner, which is crucial for safeguarding the suspect's identity from the witness. South African case law has implemented various protections to mitigate this risk, such as ensuring the parade officer is not the investigating officer, keeping witnesses out of sight or hearing during the parade assembly, and preventing contact among witnesses before and after the parade. It would be much better if the parade were organised in a way that hides the suspect's identity from both the conducting officer and other parade members. However, achieving this level of anonymity is not possible in live parades. The suspect's behaviour during the parade, as well as the knowledge possessed by the fillers, can inadvertently disclose the suspect's identity. In contrast, photo or video parades can be designed to maintain a double-blind procedure by programming computers accordingly, a feature that is likely to be impractical to implement in live parades. Furthermore, it is important to consider the enhanced safety provided to witnesses who participate in photo parades. Fear of potential repercussions, especially

when seeking dangerous perpetrators, often leads witnesses to abstain from attending live parades. Returning to their homes, possibly the site of the crime, exposes them to anxiety-inducing situations. Photo parades, by contrast, largely alleviate these concerns.

An important distinction between live and photo parades is the presence of cues related to the crime incident, such as voice, gait and size, which are inherent in live parades but not in photo (and video) parades. Although these cues appear to be crucial for identification, research studies comparing live and photo parades have not consistently shown a clear advantage for live parades. In a recent comprehensive study by Rubinova et al,¹⁵⁰ involving a large sample of over a thousand participants, no significant difference was found in favour of live parades. While some laboratory studies demonstrate that carefully managed cues can enhance static views in photo or video parades, there is no evidence suggesting that live presentations are necessary. Furthermore, advancements in interactive 3-D parades demonstrate how simple modifications to photo parades can provide witnesses with the perspective cues present during encoding, thereby making them available during the recognition phase (ie the parade).

It seems to us that there are many disadvantages to live parades and few advantages. Although it might not be appropriate simply to compare the costs of live and photograph procedures, the fact that it appears difficult to find any advantages for live presentation over photo presentation under laboratory conditions is important. Nevertheless, whilst an in-depth analysis of the legal situation is beyond the ambit of the article, our review reveals that live parades provide more legal safeguards than photographic identification parades. For example, they cannot take place in the absence of the accused and their legal representatives.¹⁵¹ This might explain why trial courts accord lower evidential value to photographic identification parades in circumstances where identification evidence is already under scrutiny.

IX CONCLUSION AND RECOMMENDATIONS

The identification parade entered English law and police practice in the 1860s and has been used in South Africa for over a hundred years. The original instruction was to place a suspect alongside individuals who closely resembled them in appearance and social standing, and to see if the witness could select the suspect from the array. This procedure was intended to be corporeal — that is, the suspect and foils would be presented in person. Comprehensive rules for doing this have developed in our case law, but a

¹⁵⁰ Rubinova et al op cit note 112.

¹⁵¹ *S v Hlalikaya* supra note 30.

key element is that a parade should be corporeal unless the circumstances make that unreasonable, in which case a photographic parade may be held. This was once also the case in English law and in many parts of the US, but it is no longer so. English police started using video parades in the early 2000s, and it is rare now to conduct a corporeal parade. In many parts of the US, police forces have opted for the even simpler photographic parade. The courts in those countries have accepted these new practices, recognising that there are considerable practical difficulties in conducting fair corporeal parades, which outweigh the possible but unproven advantages of corporeal parades. Indeed, a careful examination of the empirical research literature shows that no cogent evidence exists to support the idea that corporeal parades are better than simpler alternatives. The cost of running corporeal parades, by contrast, is very high and may well squander valuable police resources that are needed for other work. We suggest the South African criminal justice system should look carefully at this practice to see if it is still warranted and should simultaneously review the law regulating alternative procedures to ensure that the accused receives a fair trial if they are to be used.